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ATCO

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Packaging device used for food packaging etc. - has systems for oxygen absorption and/or carbon dioxide release systems

C92-015041 R(AT BE CH DE DK ES FR GB GR IT LI LU NL SE)

A device for packaging systems for oxygen absorption and/or CO₂ release; comprises a porous and water impermeable package, divided into two compartments each contg. one or more components.

The compartments are separated from each other by a low resistance weld designed to be broken to create a sole compartment inside which the components initially present in the separated compartments become mixed.

USE

In partic. in food packaging systems where the prod. (e.g. mayonnaise or fruit) must be protected against the action of oxygen or where the presence of CO₂ is used to slow down the development of bacterial flora.

PREFERRED FEATURES

The resistance of the weld is less than that of the

peripheral welds of the packaging assembly. The weld is broken by calendering. One of the compartments contains only an O₂-reducing agent which is stable w.r.t. pure air and the other compartment contains chemical agents necessary for effecting the reducing activity.

The reducing agent is pref. micronised iron powder and the chemical agents comprise an electrolyte, a hydrated fluid regulator support and an activating agent. After breakage, mixing of the various compartments causes absorption of oxygen, with a capacity proportional to the amt. of reactants present.

Alternatively, one compartment contains a chemical generating CO₂, partic. a bicarbonate or an ascorbate and an electrolyte and it also contains a sufficient amt. of water, and the other compartment contains an oxidant, partic. a ferric or cupric salt, and an activating agent, each compartment also contg. a fluid regulator support.

The fluid regulator support comprises particles of an inert cpd. from expanded clay, rehasked kaolinite, chamotte, kerfalin and neutral alumina. The activating agent is active charcoal.

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EXAMPLE

A 8 cm x 4 cm sachet is separated into two 4 cm x 4 cm compartments by a low resistance welding. 1.8 - 2.6 g Fe is placed into one compartment and the following materials are placed into the other:- 1.8-2.6 g kaolinite, 0.04-0.07 g active charcoal and 0.7-1 ml brine (15/20%). The whole sachet weighs 4-6 g.

After mixing the components, its absorption capacity is 400-600 ml oxygen. (9pp950DAHDwgNo0/0).

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